

murine Ig2a to a Lewis Y positive human breast cancer cell line at a concentration of less than or equal to a 10 fold excess of Ab2 to Ab1.

14. (New) The antibody according to claim 13, wherein said antibody is an anti-idiotypic antibody to monoclonal antibody BR55-2, expressed by hybridoma cell line ATCC HB9324 or ATCC HB9347.
15. (New) A pharmaceutical composition which comprises a monoclonal murine internal anti-idiotypic antibody (Ab2) according to claim 13 for immunization to produce an immune response against Lewis Y carbohydrate-expressing cells, together with a pharmaceutically acceptable adjuvant, carrier or diluent.
16. (New) The pharmaceutical composition of claim 15, wherein said Lewis Y carbohydrate-expressing cells are cancer cells of epithelial origin or small cell lung cancer cells.
17. (New) The pharmaceutical composition of claim 15, wherein said Lewis Y carbohydrate-expressing cells are HIV infected cells.
18. (New) The pharmaceutical composition of claim 17, wherein said cells are leukocytes.

19. (New) The pharmaceutical composition of claim 15, wherein said anti-idiotypic antibody is an anti-idiotypic antibody to monoclonal antibody BR55-2, expressed by hybridoma cell line ATCC HB9324 or ATCC HB9347.
20. (New) A method of immunization which comprises administering to a patient in need thereof an effective amount of the monoclonal antibody (Ab2) according to claim 13.
21. (New) The method of claim 20, wherein said patient is HIV infected.
22. (New) The method of claim 20, wherein said patient has cancer of epithelial origin or small cell lung cancer.
23. (New) A process for the production of anti-idiotypic antibodies according to claim 13 which comprises the following steps:
- a) immunizing mice with BR55-2/murine IgG3F (ab')<sub>2</sub>-KLH-conjugate;
  - b) fusing the murine spleen cells with the murine myeloma cell line SP 2/0;

- c) selecting the cultured hybridoma cells which produce IgG with an inhibition capacity of more than 95% (inhibition of binding of BR55-2 murine IgG2a to the SKBR5 cell line; and
- d) purifying and isolating the anti-idiotypic antibody.

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- 24. (New) A method of quantitatively determining the concentration of any molecule having the idiotype of BR55-2 and the binding specificity to BR55-2, comprising contacting a sample containing <sup>also anti-id</sup> antibodies to BR55-2 with the anti-idiotypic antibodies according to claim 13.
  - 25. (New) The method according to claim 24, wherein said molecule is a mouse/human chimera of BR55-2 or a fully humanized variant of BR55-2.
  - 26. (New) A method for a single step immunopurification of BR55-2 antibodies comprising contacting a sample containing said antibodies with a solid support comprising the anti-idiotypic antibodies of to claim 13 and isolating the BR55-2 antibodies that bind thereto.
  - 27. (New) The method to claim 26, wherein said antibodies are variants of BR55-2.